



Monitoring relay, can be mounted to Contactor 3RT2, Size S00 basic, analog adjustment Apparent current monitoring 1.6-16 A, 20-400 Hz, 2-phase Supply 24 V AC/DC 1 change-over contact Monitoring for Current overshoot and undershoot Phase failure, Cable break with or without fault buffer ON delay 0-60 s Noise pulse suppression 0-30 s Switching hysteresis 6% Screw connection system

product brand name	SIRIUS
product designation	Monitoring relays
design of the product	analogically adjustable, 2-phase current monitoring
product type designation	3RR2
General technical data	
size of contactor can be combined company-specific	S00
operating apparent power rated value	4 VA
insulation voltage for overvoltage category III according to IEC 60664	
• with degree of pollution 3 rated value	690 V
surge voltage resistance rated value	6 kV
consumed current at 24 V	90 mA
protection class IP	
• on the front	IP20
• of the terminal	IP20
shock resistance	15g / 11 ms
vibration resistance	10 ... 55 Hz / 0.35 mm
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
reference code according to IEC 81346-2	K
relative repeat accuracy	2 %
Substance Prohibitance (Date)	10/01/2009
Supply voltage	
type of voltage of the supply voltage	AC/DC
supply voltage 1 at AC	
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
supply voltage 1 at DC rated value	24 V
supply voltage frequency 1	50 ... 60 Hz
Measuring circuit	
type of current for monitoring	AC
adjustable current response value current	
• 1	1.6 ... 16 A
• 2	1.6 ... 16 A
adjustable response delay time	
• when starting	0 ... 60 s
• with lower or upper limit violation	0 ... 30 s
Precision	
temperature drift per °C	0.1 %/°C
Short-circuit protection	

design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gG: 4 A
<b>Communication/ Protocol</b>	
protocol is supported IO-Link protocol	No
<b>type of voltage supply via input/output link master</b>	No
<b>Auxiliary circuit</b>	
<b>number of CO contacts</b> • for auxiliary contacts	1
<b>operational current of auxiliary contacts at AC-15</b> • at 24 V • at 230 V • at 400 V	3 A 3 A 3 A
<b>operational current of auxiliary contacts at DC-13</b> • at 24 V • at 125 V • at 250 V	1 A 0.2 A 0.1 A
<b>contact rating of auxiliary contacts according to UL</b>	B300 / R300
<b>Main circuit</b>	
operating power rated value	2.5 W
<b>ampacity of the semiconductor output in SIO mode</b>	20 mA
<b>operational current at 17 V minimum</b>	5 mA
<b>Electromagnetic compatibility</b>	
EMC emitted interference according to IEC 60947-1	ambience A (industrial sector)
EMC immunity according to IEC 60947-1	ambience A (industrial sector)
<b>Connections/ Terminals</b>	
<b>product component removable terminal for main circuit</b>	No
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b> • for main current circuit • for auxiliary and control circuit	screw-type terminals screw-type terminals
<b>type of connectable conductor cross-sections</b> • for main contacts — solid — finely stranded with core end processing • at AWG cables for main contacts	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x (1 ... 4 mm²) 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 1x 12, 2x (20 ... 14)
<b>connectable conductor cross-section for main contacts</b> • solid or stranded • finely stranded with core end processing	0.75 ... 4 mm² 0.5 ... 2.5 mm²
<b>type of connectable conductor cross-sections</b> • for auxiliary contacts — solid — finely stranded with core end processing • at AWG cables for auxiliary contacts	1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²) 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²) 2x (20 ... 14)
AWG number as coded connectable conductor cross section for main contacts	20 ... 12
tightening torque with screw-type terminals	0.8 ... 1.2 N·m
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	direct mounting
<b>height</b>	79 mm
<b>width</b>	45 mm
<b>depth</b>	80 mm
<b>required spacing</b> • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm

- forwards 0 mm
- backwards 0 mm
- upwards 0 mm
- at the side 6 mm
- downwards 0 mm
- for live parts
  - forwards 0 mm
  - backwards 0 mm
  - upwards 0 mm
  - downwards 0 mm
  - at the side 6 mm

#### Ambient conditions

- installation altitude at height above sea level maximum 2 000 m
- ambient temperature**
- during operation -25 ... +60 °C
  - during storage -40 ... +80 °C

#### Certificates/ approvals

##### General Product Approval

##### EMC



[Confirmation](#)



##### Declaration of Conformity

##### Test Certificates

##### Marine / Shipping



EG-Konf.

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



LRS

##### Marine / Shipping

##### other



[Confirmation](#)

#### Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RR2141-1AA30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2141-1AA30>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RR2141-1AA30>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RR2141-1AA30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2141-1AA30&lang=en)

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RR2141-1AA30/manual>



